

**ENGINEERING CHANGE NOTICE**  
**DART AEROSPACE LTD**

*MPP*  
ECN #: 11- 526  
*N/A*

Date: 11.02.23	Job No.: RD1367	ADR Yes/No: N	ADR Date:	ECN #: 11- 526
Product No.: D412-702	Created By: RF	Approved By: <i>[Signature]</i>		
Product Name: Shoulder Harness Kits	Checked By: <i>[Signature]</i>	General Manager Approval: <i>[Signature]</i>		

Distribution	Reqd	Resp	Initial / Date
Production Manager / Coord.	Y	LL/JLM	
Purchasing Coord.	N		
Production Engineering Coord.	Y	EC	

Distribution	Reqd	Resp	Initial / Date
DQA / QA Coord.	N		
QC Coordinator	N		
Customer Technical Support	Y	MB/SS	
Marketing	Y	SW	
Customer Order Processing	N		

**Reason for Change:** Release D412-702 documents include the new D412-702-071 Pilot/Co-pilot Shoulder Harness Kit

**Documents Affected:**

ACR-D412-702-5 Rev. A	IIN-D412-702 Rev. F
IIN-D412-702-1 Rev. A	IIN-D412-702-2 Rev. A
IIN-D412-702-3 Rev. A	ICA-D412-702 Rev. 4
DSC-D4305 Rev. A	TR-D412-702-3 Rev. A
TP-D412-702-3 Rev. A	MDL-D412-702 Rev. O

*LA*

**PARTS MUST COMPLY** ☐ **PREVIOUS PARTS SATISFACTORY** ☒

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	N			
2	Notify Eurocopter France	N			
3					

#	Engineering Actions	Reqd	Resp	Notes	Complete
4	Required Documents/Drawings Under Review	N			
5	Update Master Document List (MDL)	Y	RF	MDL-D412-702 Rev. O	<i>11.02.23</i>
6	Update Product Compatability Matrix	N			
7	Create Eurocopter Form (FEE)	N			
8	Notify TC / FAA of Change	N			
9					

#	Document Control Actions	Reqd	Resp	Notes	Complete
10	Move Electronic Files/Design Journal	Y	KJ		
11	Update <del>Blue/Pink/DSI Folder</del> and Electronic Files	Y	KJ		<i>11.02.28</i>
12	Update Approved/Preliminary Dwg PDF Files	Y	KJ	DSC-D4305 Rev. A	<i>11.02.28</i>
13	Update Document Record (DR)	N			
14	Update Product Development Summary	N			
15	Update QSI 021 and/or STC Approval List	N			
16	Update Parts / STC Database	Y	KJ		<i>11.02.28</i>
17	Update / Verify ARC Database	Y	KJ	<i>#19</i>	<i>11.02.28</i>
18	Create / Update Change Record Form / Item Card Database	Y	KJ	D412-702-071 AT CHG 001	<i>11.02.28</i>
19	Create / Update PPP's	Y	KJ		<i>11.02.28</i>
20	Red Decals required?	Y	KJ	Install on inertial reel	<i>11.02.28</i>
21	Update Document Control Database / Laminated Dwgs	N			
22	Update Grey Project / Electronic Binder PDF Files	Y	KJ		<i>11.02.28</i>
23	Update D-Part/M-Drawing/DSI/DEO Master Binders	Y	KJ		<i>11.02.28</i>
24					

**Description / Action:**

Add D412-702-071 to Product Specs at CHG 001.

Verify that BOMS for all kits match latest IIN's since all DSI have been incorporated.

Purchase D4305-041 harness for D412-702-071 kits.

Update routing for D205-702-053B to include DSI 9460

Update routing for D205-702-353 to include DSI 9511

Update routing for D412-702-031 to include DSI 9322

Update routing for D412-702-033 to include DSI 9312

*66877*  
*5th*

ECN Verified & Complete: \_\_\_\_\_ Date: \_\_\_\_\_

**25.32 Parts Lists for Dart Pilot/Co-Pilot Shoulder Harness Kits**

QTY -071	Part Number	Description
X	D412-702-071	Dart Pilot/Co-Pilot Shoulder Harness Kit
1	D4305-041	SHOULDER HARNESS ASSEMBLY
1*	D4305-1	BUCKLE HALF
1*	D4305-3	CONNECTOR HALF
1*	D4305-5	SHOULDER HARNESS
4	AN3-4A	BOLT
2	AN3-6A	BOLT
2	AN3-7A	BOLT
14	AN960JD10L	WASHER (OR NAS1149D0332J)
8	AN960JD10	WASHER (OR NAS1149D0363J)
8	MS21042L3	NUT

\* Denotes that part is included in assembly above

## Linda Lacelle

---

**From:** Tom Hodgdon <thodgdon@AMSAFE.com>  
**Sent:** March 1, 2011 1:01 PM  
**To:** Linda Lacelle; Kathy Wade  
**Subject:** RE: new harnesses

Hi Linda!

Actually, DART wants the tougher plastic labels for their restraints, so we added a new code to the drawing to call those out, therefore the P/N is slightly different than the one you have below. Here's the quote:

Description	AmSafe P/N	2011 Price, ea.
4-Point w/shoulder strap adjusters, Rotary Buckle fixed to <b>Left</b> -Hand Lap Strap, Auto/Manual Lock, Black webbing.	4181-2-151-2396	\$ 565.71
4-Point w/shoulder strap adjusters, Rotary Buckle fixed to <b>Right</b> -Hand Lap Strap, Auto/Manual Lock, Black webbing.	4181-2-161-2396	\$ 565.71

Generally with crew seats which use a rotary buckle, the buckle is fixed to the outboard lap belt strap. All the samples we shipped to Dart and for Heli-Expo were the left-hand fixed buckle systems, so perhaps that's how they want to go with them.

I'll send an email to Siân, Robert, and Mike and see which way they want to go.

Hope to see you in Orlando next week!

Best regards,

**Tom Hodgdon, Jr.**  
Director of Sales & Marketing, Restraint Systems  
AmSafe  
1043 N. 47th Avenue  
Phoenix, AZ 85043  
Office: 602.850.2777  
Mobile: 602.628.0358  
email: thodgdon@amsafe.com

---

**From:** Linda Lacelle [mailto:llacelle@dartaero.com]  
**Sent:** Tuesday, March 01, 2011 8:20 AM  
**To:** Tom Hodgdon; Kathy Wade  
**Subject:** new harnesses

Good Morning,

We have the go ahead to purchase some of the 4181-2-011-2396 that you sent as a sample to Sian awhile back, could you please advise P & D on these, so I can send you the P.O today?

Thank You,  
Linda Lacelle  
Production Manager  
Dart Aerospace Ltd

Hawkesbury, ON  
Phone: 613 632 9577  
Fax: 613 632 1053  
Cell: 613 676 1655

Click [here](#) to report this email as spam.

## Linda Lacelle

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**From:** David Shepherd <dshepherd@dartaero.com>  
**Sent:** March 1, 2011 5:54 PM  
**To:** 'Tom Hodgdon'; 'Linda Lacelle'  
**Cc:** 'Kathy Wade'; 'Robert Fuentes'; 'Mike Petsche'  
**Subject:** RE: new harnesses

Got it ... Just wanted to be sure ... Thanks for the quick reply ... See you in Orlando.

David

---

**From:** Tom Hodgdon [mailto:thodgdon@AMSAFE.com]  
**Sent:** Tuesday, March 01, 2011 3:42 PM  
**To:** David Shepherd; Linda Lacelle  
**Cc:** Kathy Wade; Robert Fuentes; Mike Petsche  
**Subject:** RE: new harnesses

Hi David,

Those are still the correct subassemblies for the 4181-2 top assembly. Our top assembly P/N changed to 4181-2-151-2396 to add the plastic labels for DART

Let me know what else I can do to help!

*Best regards,*

**Tom Hodgdon, Jr.**  
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**From:** David Shepherd [mailto:dshepherd@dartaero.com]  
**Sent:** Tuesday, March 01, 2011 3:30 PM  
**To:** Tom Hodgdon; 'Linda Lacelle'  
**Cc:** Kathy Wade; 'Robert Fuentes'; 'Mike Petsche'  
**Subject:** RE: new harnesses

Tom,

Per our dwg, are the 4181-201, 4181-203, and 4181-207 parts still applicable to the 4181-2-151-2396 harness???

Or do these part numbers need to change as well???

Thanks,  
David

---

**From:** Tom Hodgdon [mailto:thodgdon@AMSAFE.com]  
**Sent:** Tuesday, March 01, 2011 1:31 PM  
**To:** Linda Lacelle

**Cc:** Kathy Wade; Robert Fuentes; dshepherd@dartaero.com; Mike Petsche

**Subject:** RE: new harnesses

Hi Linda,

Actually this is the first time I have seen a DART drawing for this restraint, and we weren't given any DART part numbers to include on our labels.

So right now, we need to stop and write an EO to revise the drawing to allow a customer P/N to appear on the labels, and this needs to happen **before** we build any of these restraints for you.

From looking at your drawing, the following is correct:

DART P/N D4305-041 = AMSAFE 4181-2-151-2396

It should take about 4 days to revise and release our drawing to Manufacturing, at which point we can build restraints.

Cheers!

*Best regards,*

**Tom Hodgdon, Jr.**

*Director of Sales & Marketing, Restraint Systems*

*AmSafe*

*1043 N. 47th Avenue*

*Phoenix, AZ 85043*

*Office: 602.850.2777*

*Mobile: 602.628.0358*

*email: thodgdon@amsafe.com*

---

**From:** Linda Lacelle [mailto:llacelle@dartaero.com]

**Sent:** Tuesday, March 01, 2011 1:06 PM

**To:** Tom Hodgdon

**Cc:** Kathy Wade; Robert Fuentes; dshepherd@dartaero.com; 'Mike Petsche'

**Subject:** RE: new harnesses

**Importance:** High

Hi again Tom,

I think there was a little confusion about the P/N on our side, could you please verify the attached drwg and mark up the P/N's accordingly? I really need to get these on order asap, as we already have orders coming in!

Thx

Linda

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Production Manager

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